

IBC Meeting Minutes

Location: Evans 720

January 12, 2010, 12:10pm

Adjourned: 2:28pm

Present: F. Gibson, R. Morales, K. Tuohey, N. Broude, S. Ghosh, S.

Kirchain, C. Barbanel, K. Kirsch, M. Rarick, C. Sulis, K. Bossart, R.

Ingalls, R. Lafyatis

Absent: A. Henderson, R. Caruso, J. Barton, G. Jacobson, T. Brauns, J.

Gonsalves, G. Bain

Guests: L. Vintinner, E. Beer

Staff: A. Cavicchi, B. Xiarhos

I. Review of December Minutes

Discussion: One change: Protocol 1307 add brief project description

Recommendation: Approved

For: 5

Against: 0

Abstained: 5

II. New Business

a. Introduction of a new member

b. Chairperson Report

1. New IBC Application: The new application is not yet posted on the website. The IBC is moving from a paper based application to an online application in RIMS in two phases. This version of the application was approved by the IBC in August 2009. Since then, the synthetic DNA section has been consolidated into the rDNA section. The title has changed to Biological Use Authorization. Beta testing for RIMS will begin. The roll out date for RIMS is unknown currently.
2. IBC Training Sessions: Training sessions will continue during IBC meetings and are presented by members. Volunteer for the next training session for Human Gene Therapy Protocols relating to the IBC application, NIH Guidelines and Regulations.
3. Cores: This will be integrated into the IBC application. When the application is available online, there will be prompting questions for core related research. PI will have to declare use of a Core facility via online application.

c. Technical Committees

1. Status of November and December applications: In November there were 14 applications, 1 was tabled, 1 was withdrawn, 7 revised have been received and 2 are approved. In December there were 9 protocols reviewed, 2 revised have been received.
2. IBC Approval Letter Package: IBC Approval Summary form was distributed during December meeting which is now the second page of the IBC approval letter package. The 3rd page is a User Certification Form. Each person listed on an IBC protocol will sign this. Need to revise to clarify the definition of incident.
3. IBC Application: There is proposed language for Core facilities that will appear in the future application. Will revise a question regarding synthesized DNA based on feedback.

d. Biosafety Report

1. Research Safety Program Improvements: Research Safety Follow up for a risk assessment not a lab inspection. There will be a new BUA process to complement information in registration.
2. Identify Key Agents based on Ad Hoc report: A working group met to identify key agents used on campus for agent cards.
3. OEHS Inspection reports will be entered into RIMS.
4. Health and Safety Logbooks are being generated for labs. There will be a safety center for each laboratory which will contain IBC protocols, Chemical Hygiene Plan, and other documents.
5. Standardized Door Placard and Signage: Working with other members of OEHS on standardized signage.
6. Status of BSL-3 suite was discussed.

e. Protocol Review:

Meeting is not closed

a. New Submissions

I. New Submissions

1) Protocol #1315

Title: "H: 28825 Gene Therapy for AD: A Double-blind placebo-controlled (sham surgery) randomized, multicenter study evaluating CERE-110 Gene delivery in subjects with mild to moderate Alzheimer's disease"

Category: rDNA/Biohazardous

Biosafety level: BSL-1

Brief Project Description: The goal of this study is to see if gene therapy with a substance called Nerve growth factor (NGF) gene/CERE-110 injected into a specific area in the brain can help promote nerve regeneration subsequently helping nerves regenerate helping to slow the decline in memory for someone with Alzheimer's type memory disease. One half of the participants will undergo a procedure in which they will have a small hole on the external part of their scalp without the injection while the other group receives injection with the substance.

Both groups will be under the impression that they are undergoing a surgical procedure under anesthesia. Safety of the study treatment and memory tests will be monitored for two years.

PI Needs to:

- Revise Layman's Terms
- Provide more detail throughout the application
- Complete rDNA section
- List all personnel and describe what procedures each person will be performing
- Check human blood
- Lab safety training needed
- List all lab locations
- Contact Hospital Epidemiologist
- Discuss follow up visits
- Describe how study drug is taken from pharmacy to Operating Room and how excess is disposed of
- List disinfectants
- Check agreement policy
- Add Co PI
- Complete rDNA Registration

Recommendation: Tabled

For: 11

Against: 0

Abstained: 0

2) Protocol # 1305

Title: "EVC2: A novel modulator in tooth development"

Category: rDNA/Biohazardous

Biosafety level: BSL-2, ABSL-1

Brief Project Description: People suffering from Ellis-van Creveld (EVC) syndrome show oral/dental abnormalities including missing/small teeth. In order to investigate the mechanism of dental abnormalities in EVC patients caused by a mutation in EVC2 gene, we have generated Evc2 mutant mice. The goals of our study are to determine when and how these mice develop abnormal teeth and to investigate the effect of Evc/Evc2 mutation on the cell movement in teeth.

PI Needs to:

- Revise PPE
- Clarify whether infected animals and animal tissue should be checked

Recommendation: Approved pending

For: 11

Against: 0

Abstained: 0

3) Protocol # 1306

Title: "Role of Vwc2-assisted activin signaling in bone formation"

Category: rDNA/Biohazardous

Biosafety level: BSL-2, ABSL-1

Brief Project Description: Although current osteoporosis drug market is heavily dominated by anti-restorative agents (which target osteoclasts, bone resorbing cells, and inhibit these cell function), they fail to primate the replacement of bone loss. Thus, there is an urgent need to identify a novel approach to enhance osteoblast function, which enables to accelerate bone formation. We recently found that new cysteine-knot protein members Vwc2 and Vwc2r might be the potential inhibitors of bone formation at cellular levels. The purpose of this study therefore is 1) to investigate the functions of these new proteins in vivo, i.e. whether Vwc2 and Vwc2r are osteoblast inhibits in animal models, and 2) to delineate the molecular mechanisms of these protein functions in bone formation. Once we could control these protein functions, it exerts the potential anabolic effects on bone formation, which leads to critical efforts directed at increasing bone formation and decreasing the risk of bone fracture.

PI Needs to:

- Revise Layman's terms
- Edit PPE

Recommendation: Approved pending

For: 11

Against: 0

Abstained: 0

4) Protocol #1312

Title: "Modulation of Glomerular Function"

Category: rDNA/Biohazardous

Biosafety level: BSL-1, ABSL-1

Brief Project Description: Understanding the basic principles of olfactory system function can lead to an increased understanding of how the nervous system processes sensory input – including visual, auditory, or touch-related input. These insights could be important in developing artificial sensory organs for humans (for the visually-impaired, for example). They could also be important in developing technology for detecting and recognizing particular odors – for example those characteristic of explosives. Understanding more about mammalian nervous system function also has the potential to lead to improved diagnosis and treatment of diseases of the nervous system. The attenuated viruses used in this work have become standard tools in thousands of labs around the world, and since these viruses are non-replicating, there is no public health risk.

PI Needs to:

- Discuss recombinant work, how neurons are analyzed
- Revise Layman's Terms
- Clarify lab locations
- Remove commentary about food and drink
- Provide more information for AAV virus, and species of origin for genes listed

- Clarification on training needed
Recommendation: Conditionally approved
For: 11
Against: 0
Abstained: 0

5) Protocol # 1313

Title: "The role of caveolin-1 overexpression in scleroderma fibrosis"

Category: rDNA/Biohazardous

Biosafety level: BSL-2, ABSL (TBD)

Brief Project Description: Scleroderma (SSc) is a chronic progressive multiorgan disease. Among other symptoms, patients with this disease have excessive hardening of the skin (fibrosis) due to increased deposition of collagen by the cells in the skin called dermal fibroblasts. The pathogenesis of scleroderma is still poorly understood and there is no cure for SSc fibrosis. Several proteins in the fibroblasts of SSc patients are deregulated and it is believed that these alterations contribute to SSc skin fibrosis. In our proposal, we hypothesize that overexpression of a protein called caveolin-1 has an important role in activating two pro-fibrotic signaling pathways in the fibroblasts of SSc patients. We propose to utilize recently developed technologies based on adenovirus overexpression and RNAi to investigate the effects of caveolin-1 deregulation in cultured SSc fibroblasts. In this study we will also use mouse models that overexpress caveolin-1 in their skin to understand the consequences of caveolin-1 overexpression in SSc patients. Our long term goal is to elucidate the role of aberrant caveolin-1 expression in SSc fibrosis which may help select patients for future caveolin-1 based therapies.

PI Needs to:

- Check infected animals and animal tissue
- List emergency contact
- Discuss animal work and rDNA work
- Revise Layman's Terms
- Verify IRB protocol number
- Provide IACUC protocol number
- Clarify transport

Recommendation: Conditionally approved

For: 10

Against: 0

Abstained: 1

6) Protocol # 1314

Title: "Transcriptomics and Epigenomics of Chronic Obstructive Pulmonary Disease (COPD); Lung Genomics Research Consortium; Airway Response to Tobacco Smoke (ARTS); Genetic Determinants of Epithelial DNA Damage in Smokers 2001-246G"

Category: rDNA/Biohazardous

Biosafety level: BSL-2

Brief Project Description: Transcriptomics and Epigenomics of COPD and Lung Genomics
Research Consortium: Chronic obstructive pulmonary disease (COPD) is the fourth leading cause of death in the US, and there is currently no cure. COPD is a heterogeneous disease that involves chronic airway inflammation (asthma), tissue destruction (emphysema) and mucous production (chronic bronchitis). The molecular basis for this heterogeneity is poorly understood. Developing gene expression profiles associated with COPD will provide insights into these areas. **Airway Response to Tobacco Smoke:** The current tests to verify smoking exposure do not take into account the effect of the exposure, that is, the change in gene expression. Creating gene expression profiles for smokers, nonsmokers and former smokers will help scientists determine which changes are temporary, which are permanent and which have implications for the later development of lung cancer and other lung diseases. **Genetic Determinants of Epithelial DNA Damage in Smokers:** Although most patients with lung cancer are smokers, only a minority of smokers actually develop lung cancer. The overall goal of this project is to define the preexisting and induced genetic, epigenetic, and genomic alterations that are responsible for lung cancer. We believe that the findings from these studies will lead to the discovery of critical genes and alterations involved in the genesis of lung cancer. In the long-term, these target genes may serve as nodal points for therapeutic intervention, diagnosis, prognosis and management.

PI Needs to:

- Revise rDNA section, add NIH Guidelines
 - Provide specific training dates and BU ID numbers as well as experience
 - Revise manipulations section to include procedures and manipulations for mouth and nose samples. State Universal Precautions will be used. State who will be collecting samples from patients. Add descriptions of procedures and manipulations associated with rDNA work.
 - Revise Layman's Terms
 - List pertinent IRB protocol numbers
 - Provide shipping training date
 - Change fresh bleach to 10% fresh bleach
 - Completely revise rDNA Registration Form
- Recommendation: Conditionally approved

For: 11

Against: 0

Abstained: 0

7) Protocol # 1317

Title: "Isolation of DNA and RNA from cells, tissues, blood and saliva samples"

Category: Biohazardous

Biosafety level: BSL-2

Brief Project Description: The Microarray Core would like to increase the spectrum of services provided. The suggested new services will be extraction of genetic materials (RNA or DNA) from samples provided by customers. The extracted DNA, RNA and miRNA will be used for genotyping or gene expression analysis using corresponding microarrays.

PI Needs to:

- Revise PPE, use Biosafety Cabinet
- Restrict samples to BSL-2
- Implement a screening policy for samples received

Recommendation: Conditionally approved

For: 10

Against: 0

Abstained: 1

ii. 3 Year Resubmissions

8) Protocol # 1010

“H-25913 Regulation of Cytokines”

Category: Biohazardous

Biosafety level: BSL-2

Brief Project Description: We are attempting to understand how inflammation works. To do this we study the cells, which are found in the blood of normal individuals. After blood is taken from the volunteer, we stimulate the cells in a tube and measure different molecules that they synthesize. When we understand how inflammation works, we can design drugs to modify the inflammatory response.

PI Needs to:

- Describe what will be done with the blood
- Add BU ID number and Lab Safety Training date

Recommendation: Conditionally approved

For: 10

Against: 0

Abstained: 1

f. Amendments

1) Protocol # 689

Previously Tabled

“Molecular Determinants of GABA -A Receptor Gene Regulation; GABA-A receptor subunit regulation and epileptogenesis; Development Testing and Application of Computational Methods for Transcriptional Mapping of Eukaryotic Genomes; DOV Pharmaceutical Sponsored Research Agreement Helicon SRA”

Category: rDNA/Biohazardous

Biosafety Level: BSL-2, ABSL-2

Brief Amendment Description: We are amending our protocol to facilitate the use of our viral vectors in primary cultured neurons and in vivo at BUSM.

PI needs to:

Recommendation: Approved

For: 9
Against: 0
Abstained: 2

2) Protocol # 1277

Title: "Novel Methodology for Rapid Antibiotic Susceptibility Testing in *S. aureus*"

Category: Biohazardous

Biosafety Level: BSL-2

Brief Amendment Description: Add additional bacteria and strains to protocol.

PI Needs to:

- State the source of strains
Recommendation: Approved Pending
For: 9
Against: 0
Abstained: 2

3) Protocol # 1086

"Research Program in the Coronary Health Unit Evans Building Suite 748; Abbott, Inc. Treatment of endothelial dysfunction in diabetes and the metabolic syndrome; USANA, Inc. Chronic effects of grape seed extract on endothelial function in patients with coronary artery disease; Ocean Spray, Inc. Chronic effects of cranberry juice on endothelial function in patients with coronary artery disease; Systemic Endothelial Consequences of Periodontal Disease; Boston University Medical Center Leadership Program in Vascular Medicine; Determinants of Shear Stress-Mediated Arterial Remodeling; Vascular Consequences of Insulin Resistance and Obesity; Endothelial Redox State and Phenotype in health and Disease; Oxidative Protein Modifications in Cardiovascular Disease; The Clinical Utility of Endothelial Function in PAD"

Category: Biohazardous

Biosafety Level: BSL-2

Brief Amendment Description: Add discarded rat tissue to protocol.

PI Needs to

- State what will be done with tissue
Recommendation: Conditionally approved
For: 9
Against: 0
Abstained: 2

4) Protocol #1234

Title: "Therapeutic Vaccine for Tularemia; Protective and Pathogenic B Cell Epitopes in Tularemia"

Category: Biohazardous

Biosafety Level: BSL-3

Brief Amendment Description: Change address and add LVS strain.

PI Needs to:

Recommendation: Approved

For: 9

Against: 0

Abstained: 2

5) Protocol # 1143

Title: "Use of noninfectious tissues and fluids containing inactivated viral antigens to study disease pathogenesis"

Category: Biohazardous

Biosafety Level: BSL-1

Brief Amendment Description: Receive inactivated materials from another location.

PI Needs to

- Demonstrate samples are inactivated

Recommendation: Tabled

For: 8

Against: 0

Abstained: 3

6) Protocol # 1085

Title: "Human B cell function in Inflammatory Bowel Disease; The role of CD23+ B cells in human schistosomiasis; The role of TLR4+ B cells in diabetes and periodontal disease"

Category: Biohazardous

Biosafety Level: BSL-2

Brief Amendment Description: Add an additional source of serum.

PI Needs to:

Recommendation: Approved

For: 9

Against: 0

Abstained: 2

7) Protocol #587

Title: "The Gonococcal Fur Regulon: Link to Pathogenesis; Invasive Bacteria Accelerate Through TLRs; Inhibition of Gingipains In Vitro and In Vivo"

Category: rDNA/Biohazardous

Biosafety Level: BSL-2

Expedited Approval: Change in personnel

8) Protocol #983

Title: "Pathogen Induced Inflammation, Innate Immunity and Atherosclerosis"

Category: Biohazardous

Biosafety Level: BSL-2 with special practices of BSL-3

Expedited Approval: Change in personnel

9) **Protocol #664**

Title: "Innate Immune Responses to Neisseria and Chlamydia; Innate Immune Receptors in Host Response to Neisseria; Interaction of Chlamydia with Innate Immune Receptors"

Category: rDNA/Biohazardous

Biosafety Level: BSL-2 with special practices of BSL-3

Expedited Approval: Change in personnel

10) **Protocol #1079**

Title: "A Phase 2, Double-Blind, Placebo Controlled Trial to Assess the Efficacy of Quetiapine Fumarate Sustained Release for the Treatment of Alcohol Dependency in Very Heavy Drinkers"

Category: Biohazardous

Biosafety Level: BSL-2

Expedited Approval: Change in personnel

11) **Protocol #920**

Title: "Vasculitis Clinical Research Consortium Longitudinal Studies (Takayasu's Arteritis, Giant Cell Arteritis, Polyarteritis Nodosa, Wegemer's Granulomatosis & Microscopic Angiitis, Churg-Strauss Syndrome); Healthy control blood samples for use in research into autoimmune/inflammatory diseases; Rituximab therapy for the induction of remission and tolerance in ANCA-associate Vasculitis; A multi-center, open-label pilot study of Abatacept in the treatment of mild relapsing Wegener's Granulomatosis (WG)"

Category: Biohazardous

Biosafety Level: BSL-2

Expedited Approval: Change in personnel

12) **Protocol #1113**

Title: "New vaccines to protect against hemorrhagic fever viruses"

Category: rDNA/Biohazardous

Biosafety Level: BSL-2

Expedited Approval: Change in personnel

13) **Protocol #1024**

Title: "Genetic Epidemiological Studies of Alzheimer Disease"

Category: Biohazardous

Biosafety Level: BSL-2

Expedited Approval: Change in personnel

g. Renewal of Protocols with Proposed Changes

h. Renewal of Protocols with no Proposed Changes